



# DOTD TRAFFIC MONITORING

Jason Chapman

Data Collection & Management Systems

# Traffic Monitoring Program

- ◆ Traffic characteristics
  - ◆ Volume
  - ◆ Vehicle classification
- ◆ Support federal data requirements
- ◆ Support DOTD engineering design and planning processes



# Traffic Monitoring Collection Methods

- DOTD field crews
  - Routine traffic volume counts
  - Vehicle classification
  - Vehicle weigh in motion
  - Continuous traffic volume counts
- Contracted Services
  - Blanket traffic volume counts
  - Vehicle classification (supplements DOTD crews as needed)

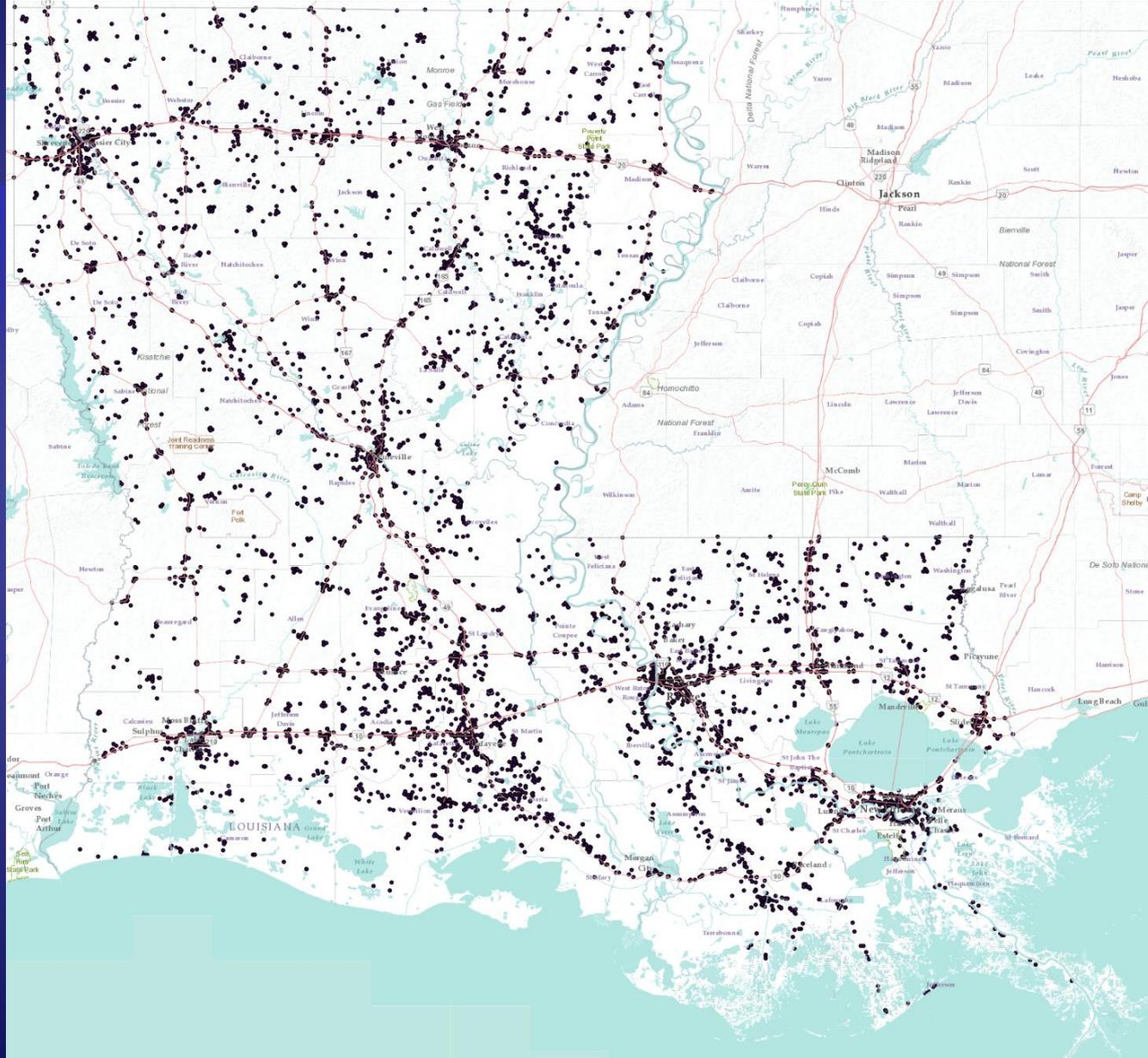


# Data and Collection Methods

- **Routine Traffic Volume Counts**
  - State maintained routes
  - Short Session – 48 Hour
  - 3,700 monitoring sites collected every 3 years
- **Blanket Traffic Volume Counts**
  - Local roads
  - Short Session – 48 Hour
  - 50,000 monitoring sites collected over a 10 year period
  - Supplemented with contracted services (Southern Traffic Services)

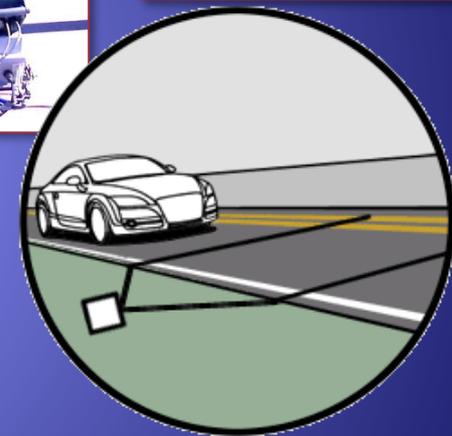


# Routine Count Locations



# Data and Collection Methods

- ◆ **Vehicle Classification**
  - ◆ Short Session (48 Hour)
  - ◆ 1300 monitoring sites collected every 3 years
  - ◆ AASHTO standard 13 vehicle types



1  MOTORCYCLES	6  THREE AXLE SINGLE UNIT
2  PASSENGER CARS	7  FOUR OR MORE AXLE, SINGLE UNIT
3  FOUR TIRE, SINGLE UNIT	8  FOUR OR LESS AXLE, SINGLE TRAILER
4  BUSES	9  FIVE-AXLE, SINGLE TRAILER
5  TWO-AXLE, SIX TIRE, SINGLE UNIT	10  SIX OR MORE AXLE, SINGLE TRAILER
	11  FIVE OR LESS AXLE, MULT-TRAILER
	12  SIX AXLE, MULT-TRAILER
	13  SEVEN OR MORE AXLE, MULT-TRAILER

# Data and Collection Methods

- ◆ **Vehicle Weigh in Motion**
- ◆ Short Session – 48 Hour
- ◆ 100 monitoring sites collected every 3 years
- ◆ Estimates ESALS

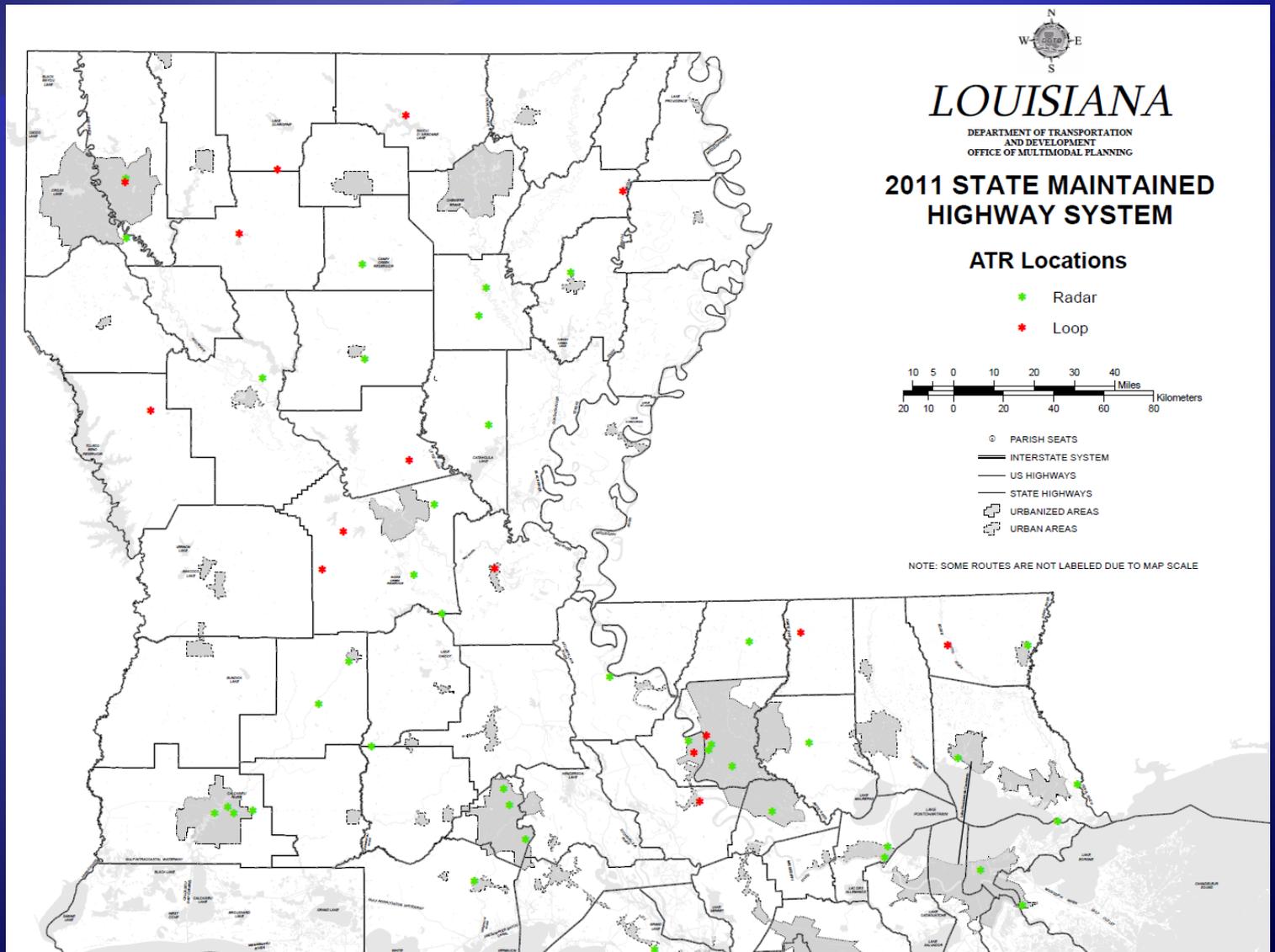


# Data and Collection Methods

- ◆ Continuous Traffic Volume Counts
- ◆ 53 active permanent monitoring sites
- ◆ Polled weekly by telemetry
- ◆ Malfunctions serviced weekly



# Statewide ATR Locations



# Data Distribution

- ◆ DOTD Website
- ◆ Mainframe

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

LOUISIANA DEPARTMENT OF Transportation & Development  
Agency of Louisiana.gov

La DOTD

- About DOTD
- Doing Business With DOTD
- Employment
- Transportation
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  - Louisiana Transportation Authority
  - Louisiana Transportation Research Center
  - Marine & Rail
  - New Orleans - CCCD Bridge/Ferries
  - Port Priority Program
  - Public Transportation
  - Public Works and Water Resources
  - Traffic Counts
  - Traffic Engineering
- Pre-Construction
- Construction
- Operations
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- Public Works & Water Res.
- Publications / Manuals
- GIS / Maps Online
- Contacting DOTD
- Employee Portal

Welcome to DOTD.Louisiana.gov  
 Philosophy: LA DOTD exists to serve the transportation needs of Louisiana, integrity, and...

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Host: ldt3270 Port: 6623 LU Name: Disconnect

TAT1 AVERAGE DAILY TRAFFIC FILE TATV01

ACTION: BLANK-DISPLAY, A-ADD, U-UPDATE, D-DELETE

STATION : 101010 CONTROL SECTION: 052 05 ROUTE : 0001  
 DISTRICT: 08 C.S. LOGMILE : 02.19 MILEPOINT : 000.00  
 PARISH : 05 URBAN/RURAL (U/R) : R FUNC CLASS: 06  
 LATITUDE: LONGITUDE:

YEAR	ADT	YEAR	ADT	YEAR	ADT
1985	6239	1975	3966		
2009	5512	1984	6692	1974	2574
2006	4600	1983	5500	1973	2579
2003	6328	1982	4902		
2000	5997	1981	4096		
1996	5292	1980	4280		
1993	4734	1979	4539		
1990	4801	1978	4505		
1987	3999	1977	4425		
1986	4446	1976	3141		

TO DELETE A YEAR, BLANK IT OUT.

F3 MENU F5 LIST F7 PREV F8 NEXT

MA A 03/015

Connected through TLS1.0 to secure remote server/host ldt3270 using lu/pool TCP10395 and pl

la.gov

DOTD A-Z 511LA.C

LOUISIANA'S THE MOVE! DOTD

search DOTD

12/22/2011 - I-10 split to Siegen wide

LADOTD Estimated Annual Average Daily Traffic Count Sites

Select a parish: 17-E Baton Rouge

Navigation tip: Use scroll wheel to zoom in and out. Drag to move map. Double-click to center and zoom in on a point. Hover over a point to show Route and ADT.

Download the data in ".csv" format: download

Contact: Roger Kennedy

Route: LA3034  
 milepoint: 148  
 station: 208280  
 Year - ADT  
 2011 - 17303  
 2008 - 17647  
 2005 - 19708  
 2002 - 18459  
 1999 - 14785  
 1997 - 13379

# Data Distribution



- ◆ Transmetric Traffic Server
- ◆ Web-based application
- ◆ Collect data by uploading in house collection, contractors and auto-polling permanent stations
- ◆ Single point access to traffic monitoring stations

View Station : 101310

Referencing

Station Id: 101310 (Key=876) Edit Station

Physical or virtual: Station is physical [V]

Monitoring device: Portable traffic recording device

Other region description:

Road: 17 urban - Collector

Road functional class: 17 urban - Collector

Description:

Route Number: LA0114 View

LRS Section Id: 145-02-1-010 View

LRS Section Offset miles: 2.380

Traffic Segment Start miles: 2.367

Traffic Segment End miles: 2.809

Coordinate: 31.053900, -92.059400

Google Street View

Approach	Dest Dir	Lane	Purpose	Speed	Description
null	null	Lanes combined	Mainlane	0 mph	1
null	null	Lanes combined	Mainlane	0 mph	2

Station Groups: Avoyelles View

Survey Schedule: History

Data Summary Raw AADT Trucks By Lane Virtual More...

Year	Value
2009	3524
2006	3279
2003	3368
2000	2069
1997	2246
1994	2590
1991	2162
1988	1970
1986	1924
1985	2127
1984	2288
1983	1887
1982	2185
1981	2093
1980	1988

View Station : 000002

Referencing

Station Id: 000002 (Key=22970) Edit Station

Monitoring Device Id: 00000000020

Physical or virtual: Station is physical [V C W]

Monitoring device: Permanent automatic traffic recorder (ATR)

Other region description:

Road: 09 rural - Local System

Description: 1.6 mi. N. OF I-10 @ RR O'pass

Route Number: 110 View

LRS Section Id:

LRS Section Offset miles: 0.000

Traffic Segment Start miles: 0.000

Traffic Segment End miles: 0.000

Coordinate: 30.454100, -91.180600

Google Street View

Approach	Dest Dir	Lane	Purpose	Speed	Description
West	East	Outside lane	Mainlane	0 mph	00000231
West	East	Other lane: 2	Mainlane	0 mph	00000232
West	East	Other lane: 3	Mainlane	0 mph	00000233
East	West	Outside lane	Mainlane	0 mph	00000221
East	West	Other lane: 2	Mainlane	0 mph	00000222
East	West	Other lane: 3	Mainlane	0 mph	00000223

Station Groups: East Baton Rouge View

Survey Schedule: History

Data Summary Raw AADT Trucks By Lane Virtual More...

None available

Station Documents

Traffic Camera - Video Provided by LADOTD

1:10 @ Governor's Mansion  
Traffic closed to camera is traveling South  
Video Provided by LADOTD

Roadway Layout



# Data Distribution

- ◆ Traffic Server reports
- ◆ Raw data
- ◆ Volume
- ◆ Classification
- ◆ Annual statistics

**Class Mix**

Primary Region: Desc: 7.0 mi. north of LA 14 at New Iberia  
 Dest Dir: East Ln: Outside lane Speed: 0 mph Desc: Id: 00c1231

Query  
 From Date: 01/01/2009  
 To Date: 01/28/2012  
 Classification: FHWA Scheme E

Result

Total	21443
Trucks	3809
% Trucks	17.763
Axes per vehicle	2.279
Axes per truck	3.570

Class Number	Percent
1	73 0.3 %
2	10438 48.7 %
3	7123 33.2 %
4	247 1.2 %
5	1334 6.2 %
6	209 1.0 %
7	16 0.1 %
8	477 2.2 %
9	1371 6.4 %
10	133 0.6 %
11	10 0.0 %
12	1 0.0 %
13	11 0.1 %
14	0 0.0 %
15	0 0.0 %
<b>Total</b>	<b>21443 100.0 %</b>

report date: 2012-01-28 14:03:00  
 report version: 5.1  
 platform version: 5.2 Build 48830  
 time to execute: 0 seconds

Send to: Printable version | Download

**Data Grid**

Primary Region: Desc: 1.6 mi. N. OF I-10 @ RR O'pass  
 Dest Dir: East Ln: Outside lane Speed: 0 mph Desc: Id: 00000231

Show day: All days  
 location: Dest Dir: East Ln: Outside lane  
 Property: number of vehicles  
 Display type: Hour of day profiles  
 Contrast: normal

Refresh

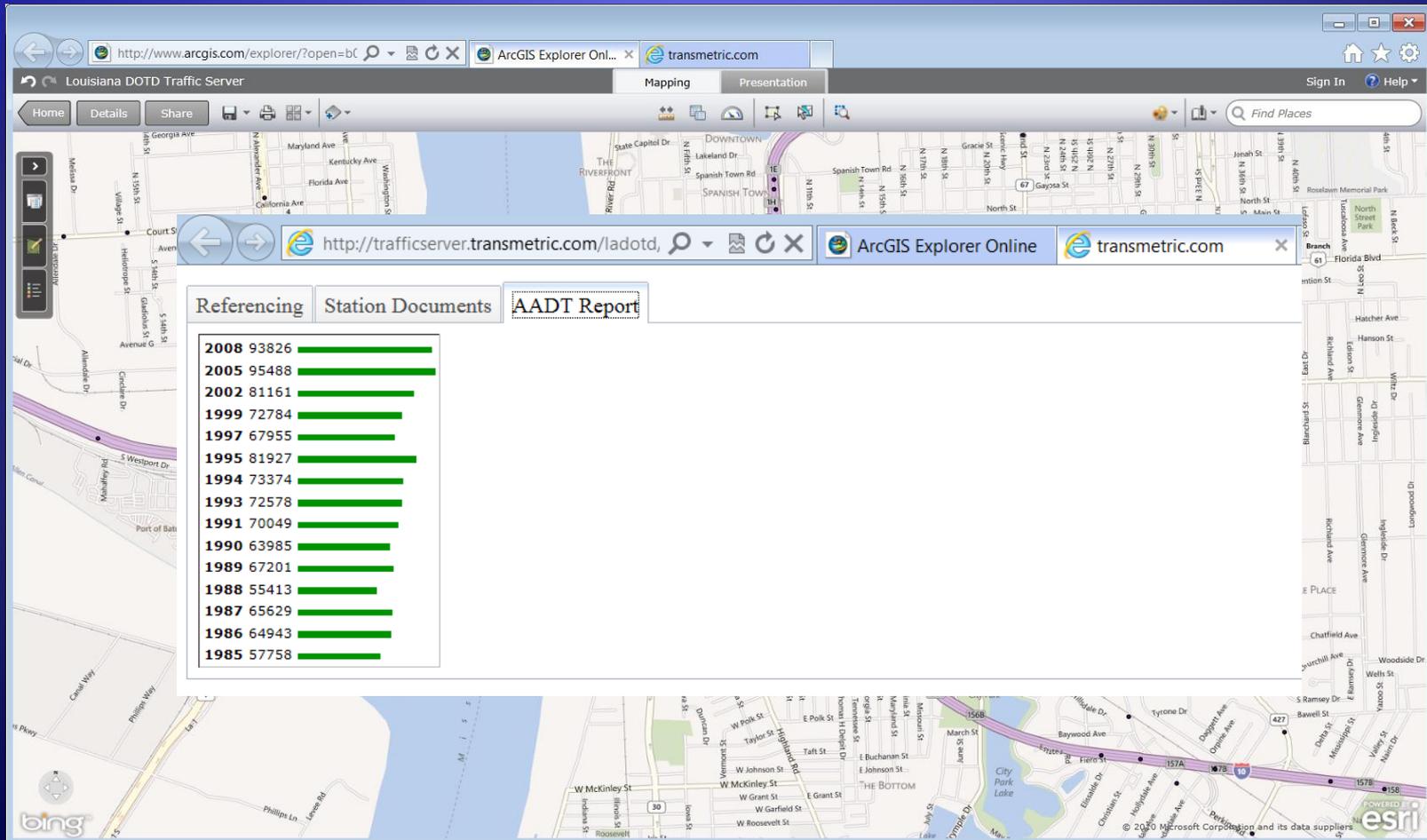
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
2011-12-07 Wed	35	32	41	51	92	120	192	254	273	277	308	285	306	311	341	222	311	276	209	166	115	99	76	52	4444
2011-12-08 Thu	39	36	40	54	101	144	190	283	273	187	241	258	436	320	345	363	379	333	262	207	170	117	111	78	4967
2011-12-09 Fri	54	46	52	69	80	145	200	256	275	337	346	370	389	378	419	422	418	416	372	321	210	163	125	70	5933
2011-12-10 Sat	67	43	46	50	81	110	135	158	256	390	322	304	296	298	292	292	329	325	271	246	194	152	104	95	4856
2011-12-11 Sun	62	32	23	31	31	49	81	98	153	248	290	353	327	363	366	351	368	315	282	211	168	99	61	46	4408
<b>Average</b>	<b>51</b>	<b>37</b>	<b>40</b>	<b>51</b>	<b>77</b>	<b>113</b>	<b>159</b>	<b>209</b>	<b>246</b>	<b>287</b>	<b>301</b>	<b>314</b>	<b>350</b>	<b>334</b>	<b>352</b>	<b>330</b>	<b>361</b>	<b>333</b>	<b>279</b>	<b>230</b>	<b>171</b>	<b>126</b>	<b>95</b>	<b>68</b>	

report date: 2012-01-13 13:32:00  
 report version: 2  
 platform version: 5.2 Build 48830  
 time to execute: 0 seconds

Send to: Printable version | Download

# Ongoing Activities

- ◆ Develop public access for Traffic Server



# Asset Data Collection

## Data items collected include;

- ◆ Number of Travel Lanes
- ◆ Type of HOV operations
- ◆ Number of HOV Lanes in both directions
- ◆ Presence of Right Turn Lanes
- ◆ Presence of Left Turn Lanes
- ◆ Posted Speed Limit
- ◆ Sections with Toll Charge
- ◆ Type of Toll
- ◆ Count of Signalized At-Grade Intersections
- ◆ Count of At-Grade Intersections with Stop Signs
- ◆ Count of Intersections without Stop Sign or Signals
- ◆ Begin Bridge Location
- ◆ End Bridge Location
- ◆ Measure of Existing Lane Width
- ◆ Type of Median
- ◆ Measure of Existing Median Width
- ◆ Type of Shoulder Material
- ◆ Measure of Existing Right Shoulder Width
- ◆ Measure of Existing Left Shoulder Width
- ◆ On Route Parking Locations
- ◆ Curve Classification Data
- ◆ Type of Terrain
- ◆ Grade Classification Data
- ◆ Sample Section Meeting the Sight Distance for Passing
- ◆ Surface Type of a Given Location

- ◆ Thickness of Rigid Pavement
- ◆ Thickness of Flexible Pavement
- ◆ Base Pavement Type
- ◆ Thickness of Base Pavement
- ◆ Friction Number
- ◆ Presence of Curb
- ◆ Presence of Rail Road Crossing
- ◆ Start Location of Sidewalk Right
- ◆ End Location of Sidewalk Left
- ◆ Identify ADA Compliant Sidewalk

## LADOTD Point Feature Locations for Mapping include;

- ◆ Cemetery
- ◆ Church
- ◆ Church & School
- ◆ Church with Cemetery
- ◆ Courthouse
- ◆ Fire Station
- ◆ Hospital
- ◆ Police Station
- ◆ Post Office
- ◆ School

# Asset Data Collection

## Data items collected include;

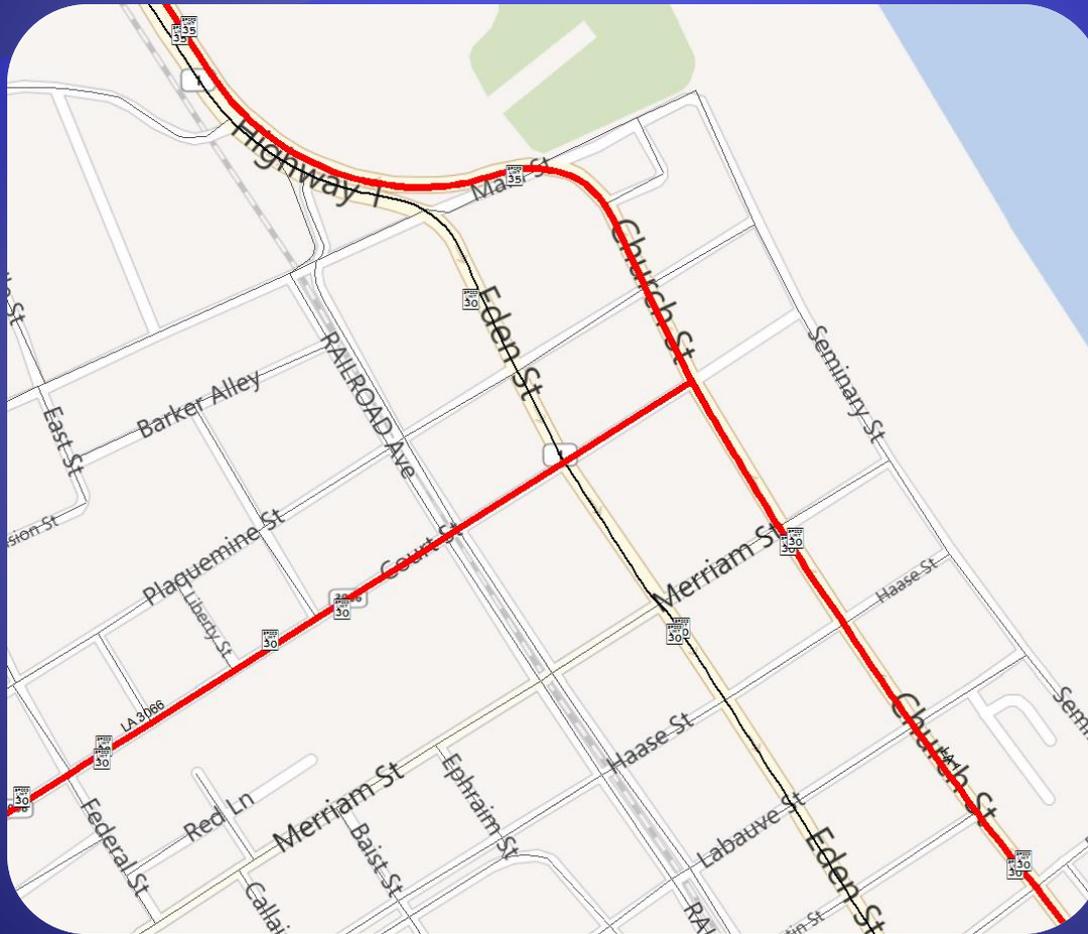
- ◆ Number of Travel Lanes
- ◆ Type of HOV operations
- ◆ Number of HOV Lanes in both directions
- ◆ Presence of Right Turn Lanes
- ◆ Presence of Left Turn Lanes
- ◆ **POSTED SPEED LIMIT**
- ◆ Sections with Toll Charge
- ◆ Type of Toll
- ◆ **COUNT OF SIGNALIZED AT-GRADE INTERSECTIONS**
- ◆ **COUNT OF AT-GRADE INTERSECTIONS WITH STOP SIGNS**
- ◆ **COUNT OF INTERSECTIONS WITHOUT STOP SIGN OR SIGNALS**
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- ◆ End Bridge Location
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- ◆ Type of Median
- ◆ Measure of Existing Median Width
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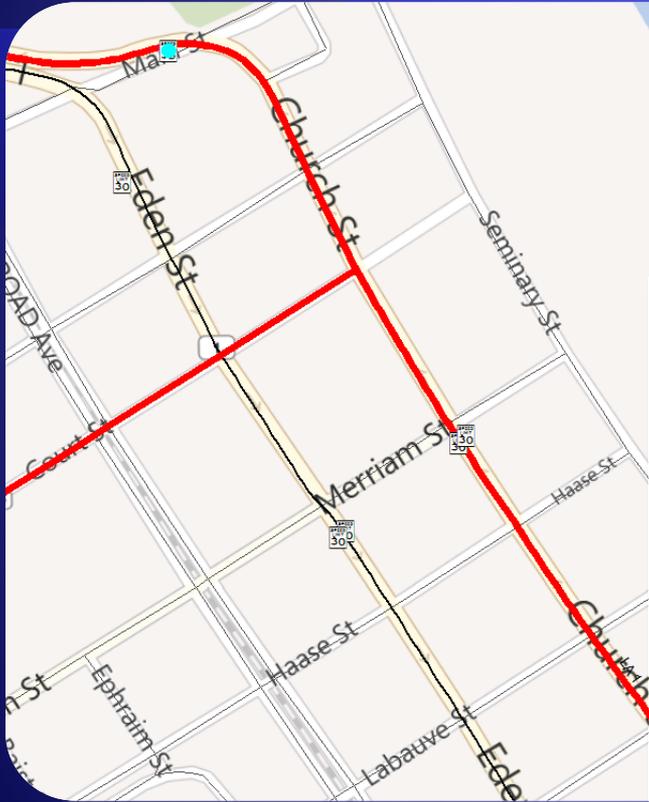
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- ◆ Hospital
- ◆ Police Station
- ◆ Post Office
- ◆ School

# Posted Speed Limit Signs

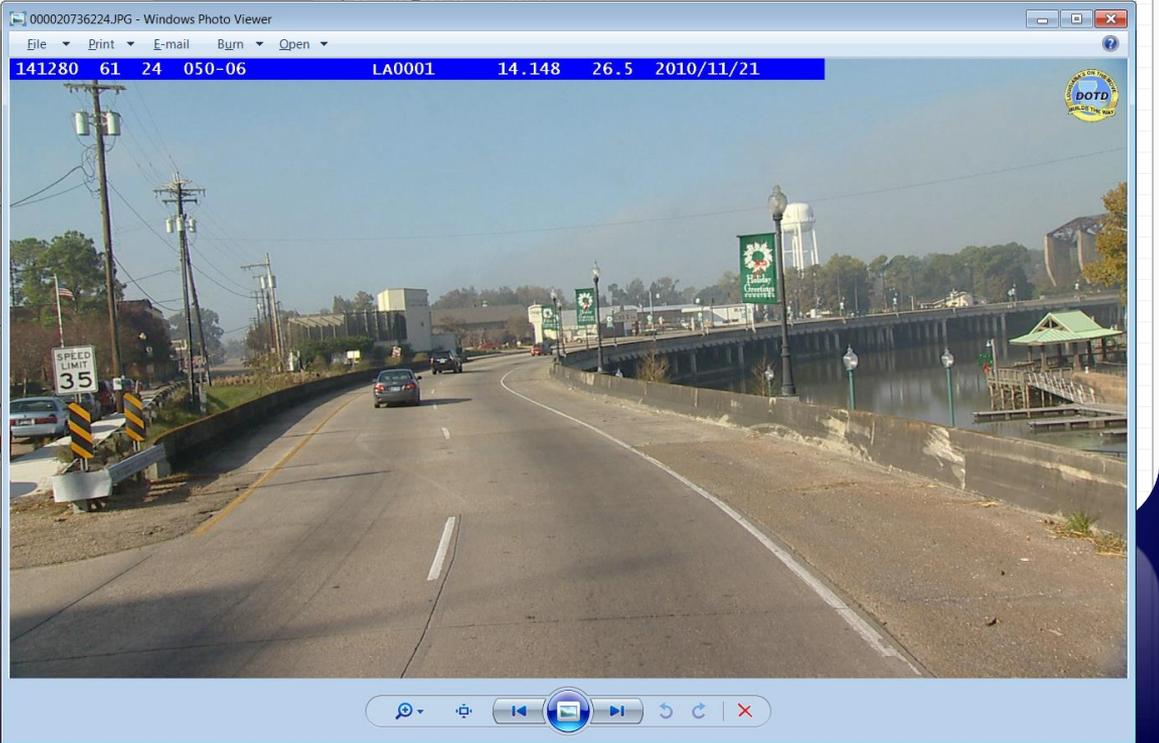


# Posted Speed Limit Signs

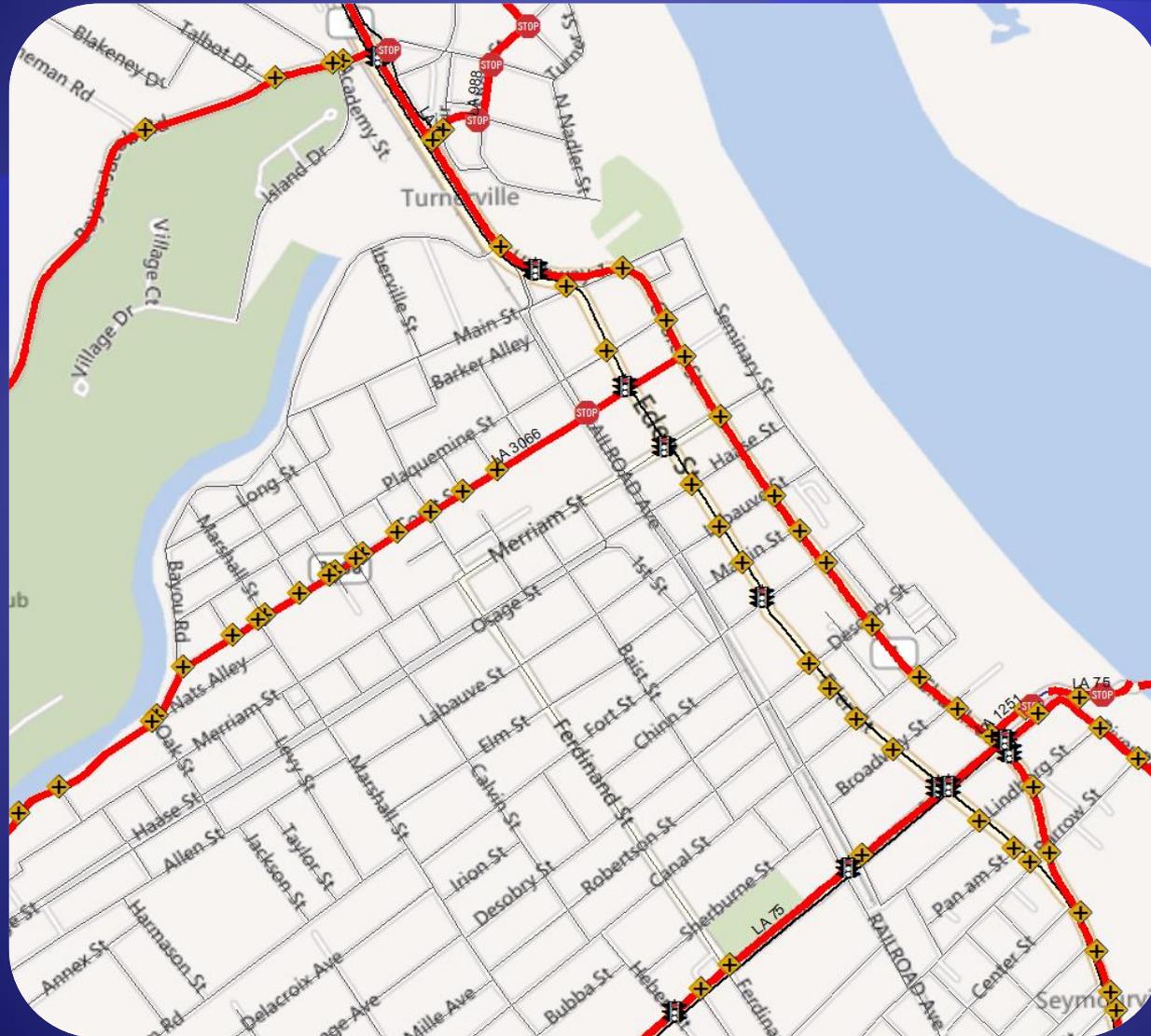


Location: 669,746.903 3,352,416.480 Meters

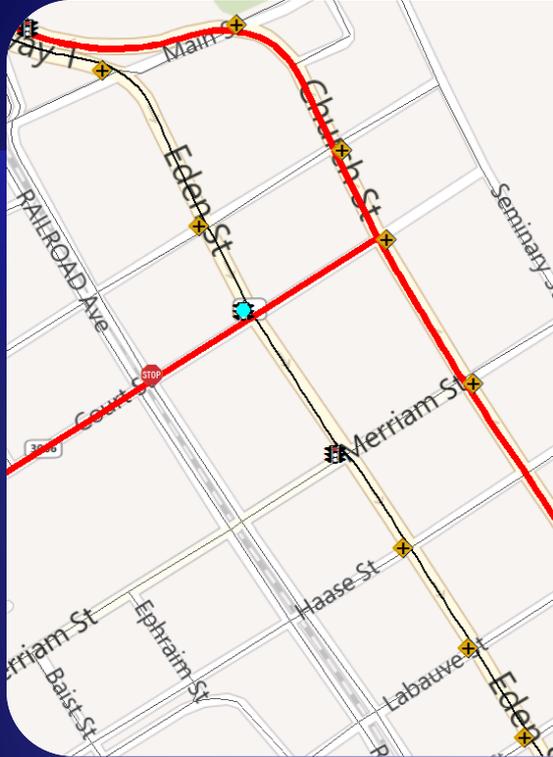
Field	Value
ASSET_IMAGE	\\pms\2010-2011_Data_Collection_Cycle\Images\ROW\10BL06Y2000\000020588212\000020736224.J
COLLECTION_DATE	11/21/2010
COMMENTS	LEFT
CONTROL_SECTION	050-06



# Intersections

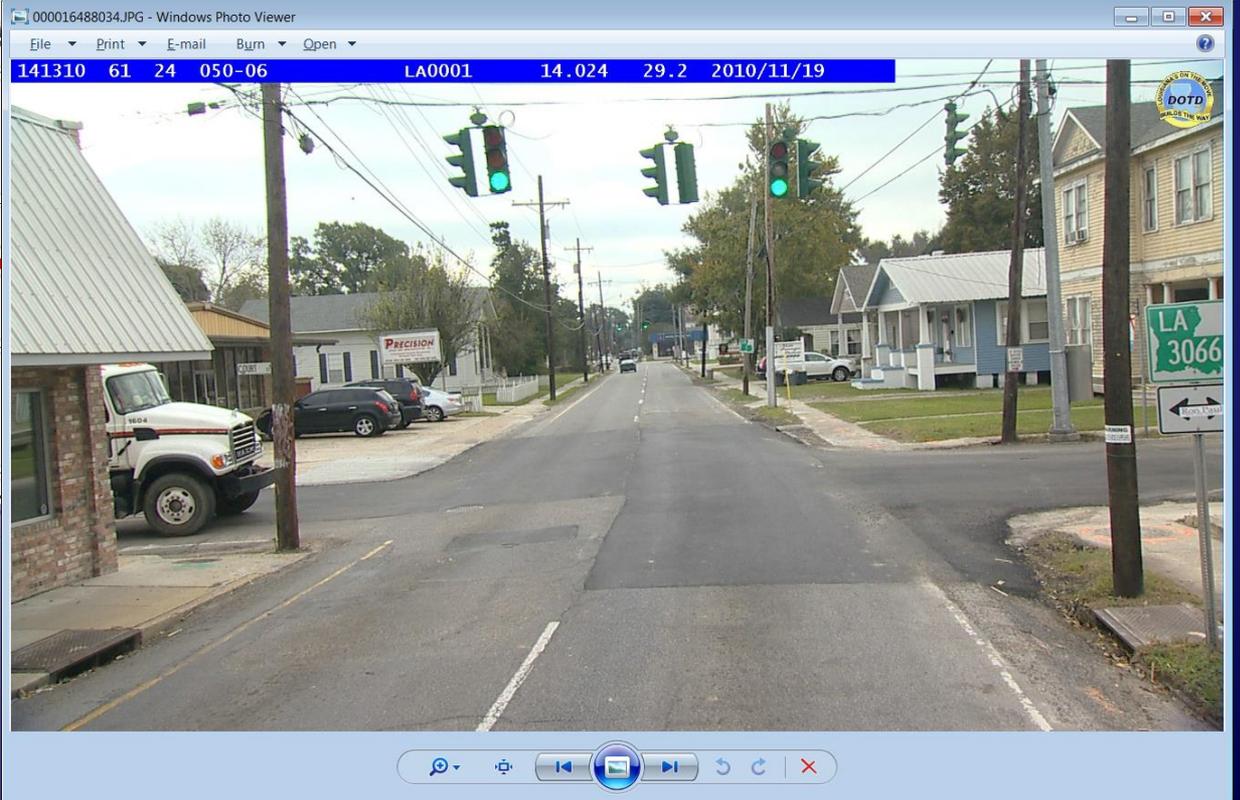


# Signalized Intersections



Location: 669,781.484 3,352,167.004 Meters

Field	Value
ASSET_IMAGE	\\pms\2010-2011_Data_Collection_Cycle\Images\ROW\10B303Y2000\000015860130\0000164:
COLLECTION_DATE	11/19/2010
COMMENTS	<null>
CONTROL_SECTION	050-06



# Current Activities

- ◆ Incorporate WIM data from Truck Scales
- ◆ LTRC research project to explore use of in place video systems for volume collection
- ◆ QCIP project to identify ALL sources of traffic data to incorporate into Traffic Server

# Thank you!

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